Actuarial Assessment of Massachusetts Senate Bill 2518
An Act Relative to Children's Mental Health

Prepared for

Division of Health Care Finance and Policy
Commonwealth of Massachusetts

Prepared by

Compass Health Analytics, Inc.

This report was prepared by James P. Highland, PhD with assistance from John C. Kelly, FSA, MBA, and Joshua Roberts.

Actuarial Assessment of Massachusetts Senate Bill 2518
An Act Relative to Children's Mental Health

Table of Contents

Actuarial Assessment of Massachusetts Senate Bill 2518
An Act Relative to Children's Mental Health

Executive Summary

Compass Health Analytics, Inc. was engaged by the Division of Health Care Finance and Policy ("the Division") to estimate the cost impact of S. 2518 *An Act Relative to Children's Mental Health* for the period 2008-2012. This proposed legislation largely focuses on administrative processes intended to improve the coordinated management of services for children receiving publicly funded behavioral health services. The Division of Health Care Finance and Policy is obligated under Chapter 3, Section 38C to provide cost estimates of legislation that affects the under-65 fully-insured population regulated by the Commonwealth's Division of Insurance (DOI). The Division identified one provision of S. 2518 with potential material cost implications for the relevant population. S. 2518 requires coverage for "collateral services", defined in the legislation as "…face-to-face or telephonic consultation, of at least 15 minutes in duration, by a licensed mental health professional with parties determined by the licensed mental health professional to be necessary to make a diagnosis, and develop and implement a treatment plan."[1]

Coverage for collateral services as generally defined in the proposed bill is not currently mandated or included voluntarily in commercial insurance products and so this study uses information from other contexts applied to data from the Massachusetts commercial population and adjusted to estimate the impact.

After review of literature and other available sources, the only payer identified currently covering collateral services for children was MassHealth managed care. (MassHealth is the name for the Medicaid program in the Commonwealth.). In order to estimate the impact of mandating collateral services on the commercial population, the ratio of per member collateral services spending to per member children's behavioral health spending in the MassHealth population was applied to the per member spending on children's behavioral health in the commercial population. This estimate was adjusted upward to reflect higher fees in the commercial sector. Low, middle, and high scenarios were computed to address the uncertainty stemming from the application of Medicaid utilization to the commercial population.

Exhibit E-1 displays the projected impacts for the years 2008-2012 for three scenarios. Over the five year period, the mid-scenario impact averages approximately $1.5 million per year, which is 5 ½ cents per member per month, or about 0.01% of premium.

[1] SB2518 Section 11.

Exhibit E-1

Estimated Cost Impact of SB2518, An Act Relative to Children's Mental Health, on Fully-Insured Health Care Premiums 2008-2012

Annual Trend in Behavioral Claims 1.065

	2008	2009	2010	2011	2012	All 5 Years
Fully Insured Enrollment	2,329,685	2,329,406	2,344,491	2,356,243	2,358,085	
Low Scenario						
Annual Impact Claims (000s)	$ 18.2	$ 19.4	$ 20.6	$ 22.0	$ 23.4	$ 103.6
Annual Impact Administration (000s)	$ 2.5	$ 2.6	$ 2.8	$ 3.0	$ 3.2	$ 14.1
Annual Impact Total (000s)	$ 20.7	$ 22.0	$ 23.5	$ 25.0	$ 26.6	$ 117.8
Premium Impact (PMPM)	$ 0.0007	$ 0.0008	$ 0.0008	$ 0.0009	$ 0.0010	$ 0.0008
Mid Scenario						
Annual Impact Claims (000s)	$ 1,199.1	$ 1,277.1	$ 1,360.1	$ 1,448.5	$ 1,542.7	$ 6,827.5
Annual Impact Administration (000s)	$ 163.5	$ 174.1	$ 185.5	$ 197.5	$ 210.4	$ 931.0
Annual Impact Total (000s)	$ 1,362.7	$ 1,451.2	$ 1,545.6	$ 1,646.0	$ 1,753.0	$ 7,758.5
Premium Impact (PMPM)	$ 0.0488	$ 0.0520	$ 0.0554	$ 0.0590	$ 0.0628	$ 0.0556
High Scenario						
Annual Impact Claims (000s)	$ 3,203.6	$ 3,411.9	$ 3,633.6	$ 3,869.8	$ 4,121.4	$ 18,240.3
Annual Impact Administration (000s)	$ 436.9	$ 465.3	$ 495.5	$ 527.7	$ 562.0	$ 2,487.3
Annual Impact Total (000s)	$ 3,640.5	$ 3,877.1	$ 4,129.1	$ 4,397.5	$ 4,683.4	$ 20,727.6
Premium Impact (PMPM)	$ 0.1305	$ 0.1390	$ 0.1480	$ 0.1576	$ 0.1679	$ 0.1486

Actuarial Assessment of Massachusetts Senate Bill 2518
An Act Relative to Children's Mental Health

Introduction

Compass Health Analytics, Inc. was engaged by the Division of Health Care Finance and Policy ("the Division") to estimate the cost impact of S. 2518 *An Act Relative to Children's Mental Health* for the period 2008-2012. This proposed legislation largely focuses on administrative processes intended to improve the coordinated management of services for children receiving publicly funded behavioral health services. The Division of Health Care Finance and Policy is obligated under Chapter 3, Section 38C to provide cost estimates of legislation that affects the under-65 fully-insured population regulated by the Commonwealth's Division of Insurance (DOI). The Division identified one provision of S. 2518 with potential material cost implications for the relevant population. S. 2518 requires coverage for "collateral services", defined in the legislation as "…face-to-face or telephonic consultation, of at least 15 minutes in duration, by a licensed mental health professional with parties determined by the licensed mental health professional to be necessary to make a diagnosis, and develop and implement a treatment plan."[2]

Coverage for collateral services as generally defined in the proposed bill is not currently mandated or included voluntarily in commercial insurance products and so this study uses information from other contexts applied to data from the Massachusetts commercial population and adjusted to estimate the impact.

The steps required to identify the costs implied by this mandate are as follows:

1.) Estimate the size of the affected insured population
2.) Estimate the per member per month cost in a sample population for which the benefit is already covered
3.) Adjust the per member per month cost for differences between the sample population and the target population (i.e., the fully insured under-65 population)
4.) Estimate the impact on administrative expenses of the relevant insurers

Following these steps, estimates were done for the entire covered population for a five-year timeframe (2008-2012) for a range of "low case" to "high case" scenarios.

[2] SB2518 Section 11.

Analysis/Calculations

Below we describe the basic steps taken to perform the projections.

Affected Population

The objective for this analysis was to develop Massachusetts population projections for purposes of analyzing the impact of S. 2518, which required estimation of the number of commercially fully insured individuals under 65 years of age. The fully-insured under-65 population for calendar year 2007 was estimated to be an average of 2.32 million members, increasing to 2.36 million by 2012. To project the Massachusetts population out to 2012, we estimated an annual growth rate of 0.4% per year, based on several population projections on the U.S. Census Bureau web site. Similarly, the growth in the age 65+ population was estimated as 1.5% per year through 2010 and 2.0% in subsequent years, again based on Census projections. The residual growth was allocated between age ranges 0-18 and 19-64.

Data Sources and Analytical Approach

After review of literature and other available sources, the only payer identified currently covering collateral services for children was MassHealth managed care. (MassHealth is the name for the Medicaid program in the Commonwealth.). While the Medicaid population has much higher utilization rates for behavioral health services for children and lower per unit cost for services, we can make adjustments to approximate commercial population utilization and cost. Because the information used to estimate the use of collateral services is not from a directly comparable population, in the analysis assumptions are set at deliberately conservatively high levels to allow for the increased uncertainty.

Survey data were collected by the Division from the health plans that currently provide managed care coverage for MassHealth enrollees. The plans surveyed include Fallon Community Health Plan, Boston Medical Center HealthNet Plan, Neighborhood Health Plan, and the Massachusetts Behavioral Health Partnership.[3] Information provided included some or all of the following: Utilization information and unit costs for collateral services and commonly provided behavioral services, as well as PMPM spending for children's behavioral health services.

The analysis also utilized previously collected PMPM spending on children's behavioral health services by commercial payers[4], as well as information on commercial fees in Massachusetts for commonly provided behavioral health services.

[3] The fifth MassHealth managed care plan, Network Health, did not respond to requests for data.
[4] Actuarial Assessment of Massachusetts House Bill 4423 *An Act Relative to Mental Health Parity*, Compass Health Analytics, Inc., June, 2008, available at www.mass.gov/dhcfp.

The basic approach used to estimate the anticipated use of collateral services among children in the fully-insured commercial population was as follows:

- Calculate A = PMPM spending on collateral services for children in the Medicaid population.
- Calculate B = PMPM spending on all behavioral services for children in the Medicaid population.
- Calculate C = PMPM spending on all behavioral services for children in the fully-insured commercial population.
- Estimate collateral services in the commercial population by calculating (A/B) * C – that is, using the ratio of collateral services to all behavioral services for children in the Medicaid population and applying it to all behavioral spending for children in the commercial population.
- Estimate a low-end scenario by applying the lowest observed use rates among the MassHealth managed care plans.
- Estimate a high-end scenario by applying the highest observed use rates among the MassHealth managed care plans.
- Estimate a mid-range scenario by applying the weighted average of the observed use rates among the MassHealth managed care plans.

Calculations Using Medicaid Data

Aggregate data on collateral services sampled from MassHealth plans for SFY2007 is displayed in Exhibit 1.

Exhibit 1

Total Usage of Sampled MassHealth Plans of Collateral Consult Services

Average Under 19 Membership		321,250		
SFY 2007	**Case Consultation**	**Family Consultation**	**Collateral Contact**	**Total**
Paid Units*	83,370	61,580	11,648	156,598
Total Paid Amount	$1,467,243	$1,071,916	$125,379	$2,664,538
Cost per Unit	$17.60	$17.41	$10.76	$17.02
Unduplicated Service Utilizers	12,284	9,626	3,037	24,947
Average units per utilizer	6.79	6.40	3.84	
Cost per utilizer	$119.44	$111.36	$41.28	
PMPM	$0.38	$0.28	$0.03	$0.69

*15 minute units

It is important to address the definition of the term “collateral” as we consider how to draw upon the MassHealth experience in estimating use of collateral services in the commercial population. As shown in Exhibit 1, MassHealth managed care plans pay for

three types of services that involve communication with parties other than the patient directly. Generally these three services are defined as:

- *Case consultation* involves provider to provider telephonic or face-to-face contact in 15 minute units.
- *Family consultation* involves provider to family member telephonic or face-to-face contact in 15 minute units.
- *Collateral contact* involves provider contact with non-clinician professionally involved with the child such as teachers, police, parole officers, coaches, or day care providers in 15 minute units.

In S. 2518 collateral services are described as face-to-face or telephonic consultation of at least 15 minutes in duration by a licensed mental health professional determined to be necessary to make a diagnosis, and to develop and implement a treatment plan. The bill does not specifically address the types of individuals with whom medical professionals would consult. In discussions with bill advocates, the range of collateral contacts mentioned included parents, foster parents, teachers, primary care clinicians, pediatricians, police, parole officers, and youth services. This would appear to describe all three types of collateral consults currently paid for by MassHealth and shown in Exhibit 1. Discussions with the Massachusetts Association of Health Plans and Blue Cross Blue Shield of Massachusetts confirm that existing CPT codes that specifically describe these various types of collateral contacts would currently be denied by them and that all of these types of contacts are currently bundled into the codes that involve direct service to the patient.

With respect to the use of the MassHealth data, all three of the consult types displayed in Exhibit 1 fall under the notion of "collateral services" as contemplated in S. 2518, and not just the "collateral contact" which is a more narrowly defined term in MassHealth. As a result, the utilization and cost information in the "Total" column of Exhibit 1 is used as the starting point of our analysis of collateral service costs related to S. 2518.

In using the MassHealth data it is also important to understand what policies accompany the coverage of these services so that their applicability to the commercial population can be understood. Three important policies associated with the MassHealth coverage of collateral services are:

- Multiple providers can bill for a discussion about the same patient as long as they are not from the same agency
- There is no limit to the number of units that can be billed (although excessive use would trigger an investigation)
- The collateral services are not bundled into any other services and so there is no artificial suppression of the actual number of collateral contacts being made relative to the commercial population.

As a result of these policies, there is no reason to believe that utilization of collateral services in the Medicaid population, as measured by the data in Exhibit 1, is an

underestimate of their true prevalence. If the MassHealth policies had restricted when collateral services could be billed in a such a way that was different from the policies likely to accompany implementation of a collateral services mandate in the commercial population, the measured MassHealth utilization would be biased downward as a basis for commercial population estimates. However, the policies used in the MassHealth population do not create such a bias.

In the collection of the MassHealth data, we also obtained information on the overall MassHealth PMPM spending for behavioral services for children. Three ratios of the rate of use of total collateral services to total children's behavioral health spending were calculated from the MassHealth data for application to the low, medium, and high scenarios:

- The lowest observed ratio among the MassHealth plans for the low scenario
- The highest observed ratio among the MassHealth plans for the high scenario
- The average observed ratio for the medium scenario.

It should be noted that the observed average ratio includes a population of MassHealth members with more complex behavioral health needs on average (e.g., includes those in the care or custody of the Commonwealth) and therefore the utilization represented by that ratio is much larger than would be likely among a commercially enrolled population.

These ratios were applied to the commercial data as described next.

Adjustment to the Commercial Population

As noted above, for a recent study the Division had collected information on behavioral health spending from the four major commercial carriers in Massachusetts, specifically for the under-65 fully insured commercial population. The children's behavioral services PMPM on a member-weighted average basis across the four sampled plans (Blue Cross Blue Shield of Massachusetts, Harvard Pilgrim Health Plan, Tufts Health Plan, and Fallon Community Health Plan) was $6.13. The ratios calculated in the section above were applied to these commercial PMPMs for children to arrive at the estimates of collateral spending that would occur in the commercial population.

Several factors affect the appropriateness of the application of these ratios, including the relative rate of behavioral illness in the populations, the degree to which ill individuals receive treatment, the nature of family, school, and juvenile justice system situations, the degree to which collateral coordination is necessary, and the degree to which providers will engage in these contacts for the respective populations. Quantifying and adjusting for any such differences is not a feasible task; however, the approach taken in this study to accommodate these potential differences is twofold:

- By using the ratio of collateral services to overall behavioral spending, and then applying that ratio to the commercial PMPM, we adjust for the higher incidence of behavioral problems in the Medicaid population, and
- By using low, medium, and high scenarios we account for the range of variation in utilization that may exist around the medium scenario estimate.

Two additional adjustments to the estimates were required. First, the spending level in the Medicaid population needed to be adjusted for the fact that fees are lower among the MassHealth managed Medicaid products than under the fully insured commercial products. Based on a comparison of fees for services in these two populations, the Medicaid costs were inflated by 23% to account for fee level differences.

The second adjustment is to inflate the estimated dollars upward to reflect those commercial health plans not included in the sample. The four plans surveyed include approximately 85% of the statewide fully-insured under-65 membership; a factor of (1/.85) was applied to inflate the dollars to include the non-sampled plans.[5]

Administrative Costs

In addition to the incremental medical care costs previously discussed, the overall impact of a mandate on the costs of health insurance in the Commonwealth consists of two other components:

1.) Incremental Administrative Expenses
2.) Incremental Margins

Incremental administrative expenses would be incurred for activities associated with the implementation of the mandate such as modifications to benefit plan materials, claims processing system changes, training/communication material for staff, etc. In addition, the proposed bill would mandate additional disclosure and reporting requirements for managed behavioral health organizations (MBHOs). These marginal administrative costs would be non-zero but less than the average administrative cost percentage that the administrative adjustment applied to these estimates allows.

Incremental margin is required in order for the insurer to maintain adequate reserve levels as required by the Massachusetts Division of Insurance. Required reserves are based on the claim levels for the insurer, and since the mandate would increase claim levels, it would increase required reserve levels and therefore incrementally increase the total dollars of margin required to meet those reserve levels.

Data provided by the Division from its Key Indicators report[6] indicate that administrative costs plus margin are currently approximately 12% on average. For the purposes of this

[5] This assumes that the sampled plans are representative of the plans not included in the survey.
[6] http://www.mass.gov/Eeohhs2/docs/dhcfp/r/pubs/08/key_indicators_0608.pdf

analysis, we assume that incremental administrative costs and margin are equal to their current average level, which allows for any extraordinary expenses and provides a conservatively high estimate of any additional administrative requirements.

Results

Estimated impacts of S. 2518 on Massachusetts healthcare premiums for fully-insured products are displayed in Exhibit 2 below.

Exhibit 2

Estimated 2007 Impact of Collateral Service Coverage Due to SB 2518, An Act Relative to Children's Mental Health
Low, Medium, and High Scenarios

	Using Lowest Ratio	Using Average Ratio	Using Highest Ratio
	All Collateral Consults	All Collateral Consults	All Collateral Consults
Commercial Total FI MMs (000s)	27,840	27,840	27,840
Commercial Children's FI MMs (000s)	6,277	6,277	6,277
Fully Insured Children's Behavioral PMPM	$ 6.13	$ 6.13	$ 6.13
Medicaid Calculated Ratio	0.031%	2.022%	5.403%
Estimated Initial Children's Claims $ (000s)	$ 11.8	$ 778.1	$ 2,078.8
Estimated Initial Children's Claims PMPM	$ 0.002	$ 0.124	$ 0.331
Commercial Fee Level Adjustment	1.23	1.23	1.23
Commercial Membership Adjustment	1.18	1.18	1.18
Estimated Overall PMPM Claim Impact	$ 0.0006	$ 0.0404	$ 0.1080
Administration	$ 0.0001	$ 0.0055	$ 0.0147
Estimated Total PMPM Impact	$ 0.0007	$ 0.0460	$ 0.1228
Estimated Total Dollar Impact (000s)	$ 19	$ 1,279	$ 3,418
Percent of Premium	0.0002%	0.0111%	0.0297%

The 2007 scenarios produce estimated impacts of between $19, 000 per year and $3.4 million per year, or 0.0002% to 0.0297% of premium. The middle case scenario produces an estimate of $1.3 million, or 0.0111% of premium. Two issues to consider that may affect the degree of impact that would actually occur under S. 2518 are awareness levels among providers and the bundling of collateral services.

Exhibit 3 projects these values from 2008-2012. The historical growth in behavioral health trend according to a recent CMS study is 6.7%.[7] We have assumed 6.5% annual growth to trend the PMPMs, as the per-person spending would be slightly less than the aggregate trend due to population growth. Over the five year period, the mid-scenario PMPM impact averages approximately 5 ½ cents, or about 0.01% of premium.

[7] Mark, T.L., Levit, K.R., et. al. Mental Health Treatment Expenditure Trends, 1986-2003. (2007) Psychiatric Services 58:1041-1048.

Exhibit 3

Estimated Cost Impact of SB2518, An Act Relative to Children's Mental Health, on Fully-Insured Health Care Premiums 2008-2012

Annual Trend in Behavioral Claims	1.065					
	2008	**2009**	**2010**	**2011**	**2012**	**All 5 Years**
Fully Insured Enrollment	2,329,685	2,329,406	2,344,491	2,356,243	2,358,085	
Low Scenario						
Annual Impact Claims (000s)	$ 18.2	$ 19.4	$ 20.6	$ 22.0	$ 23.4	$ 103.6
Annual Impact Administration (000s)	$ 2.5	$ 2.6	$ 2.8	$ 3.0	$ 3.2	$ 14.1
Annual Impact Total (000s)	$ 20.7	$ 22.0	$ 23.5	$ 25.0	$ 26.6	$ 117.8
Premium Impact (PMPM)	$ 0.0007	$ 0.0008	$ 0.0008	$ 0.0009	$ 0.0010	$ 0.0008
Mid Scenario						
Annual Impact Claims (000s)	$ 1,199.1	$ 1,277.1	$ 1,360.1	$ 1,448.5	$ 1,542.7	$ 6,827.5
Annual Impact Administration (000s)	$ 163.5	$ 174.1	$ 185.5	$ 197.5	$ 210.4	$ 931.0
Annual Impact Total (000s)	$ 1,362.7	$ 1,451.2	$ 1,545.6	$ 1,646.0	$ 1,753.0	$ 7,758.5
Premium Impact (PMPM)	$ 0.0488	$ 0.0520	$ 0.0554	$ 0.0590	$ 0.0628	$ 0.0556
High Scenario						
Annual Impact Claims (000s)	$ 3,203.6	$ 3,411.9	$ 3,633.6	$ 3,869.8	$ 4,121.4	$ 18,240.3
Annual Impact Administration (000s)	$ 436.9	$ 465.3	$ 495.5	$ 527.7	$ 562.0	$ 2,487.3
Annual Impact Total (000s)	$ 3,640.5	$ 3,877.1	$ 4,129.1	$ 4,397.5	$ 4,683.4	$ 20,727.6
Premium Impact (PMPM)	$ 0.1305	$ 0.1390	$ 0.1480	$ 0.1576	$ 0.1679	$ 0.1486

The Massachusetts health insurers assert that there may be low awareness among providers that provide services, and that the passage of S. 2518 would increase their awareness of the availability of coverage for collateral services for both Medicaid and commercial patients. In addition, the insurers assert that their paying a higher per unit rate for collateral services would increase utilization, arguing that today some providers do not bill for collateral services provided due to the low reimbursement rate under MassHealth managed care plan. While there is nothing in S. 2518 that compels commercial insurers to pay higher rates, the inclusion of the "high" scenario accommodates these issues to a significant degree. Furthermore, the intention of the MassHealth coverage of these services is to make providers aware of the services to improve the degree to which collateral services are carried out by providers so that coordination and care continuity are improved. It is not clear on what basis the assertion of lack of awareness is based.

As discussed above, the MassHealth program does not bundle any services that are of a collateral nature. The commercial insurers indicated that they pay for collateral services bundled into their current patient service fees. If S. 2518 were to pass it would seem reasonable for the providers to unbundle the collateral services from the patient services and lower those fees accordingly, which would offset increases caused by the separate billing of collateral services. Exhibit 1 above showed that only a small percentage of covered individuals have collateral services billed for them. We do not have penetration data for all behavioral services for the MassHealth program, but it is likely based on industry norms that the 4% or so penetration for collateral services represents a fraction of the overall behavioral penetration, so that for many individuals no collateral services are billed at all. A fee reduction to reflect the unbundling of collateral services would in part reduce spending for those situations in which collateral services are not provided. This may offset some or all of the increase payments that the required coverage of the service would induce.